p. 377; *Rhododermis Van Heurckii* Heydrich, Beihefte zum Botanischer Centralblatt, Vol. XIV, p. 246, Pl. XVII. The fronds of this species are cushion-shaped, of dense cellular structure, growing chiefly at the edges of *Zostera* blades; they occur also on the surface of the blade, but do not develop as fully as at the edges, where their thickness is such that they sometimes show even to the naked eye as distinct prominences. *R. Georgii* was found abundantly at Wood's Hole, Mass., in April, 1905; has since been found at Harpswell, Maine, Revere Beach, Mass., and Rocky Point, R. I.; probably it occurs in spring all along the coast.

The three species of *Rhododermis* mentioned above are all that have been described in the genus; it is satisfactory to add them all to our flora at the same time.

Malden, Massachusetts.

SOME NEW OR LITTLE KNOWN CYPERACEAE OF EASTERN NORTH AMERICA.

M. L. Fernald.

(*Continued from page 130.*)

Scirpus **hudsonianus** (Michx.), n. comb. *Eriophorum alpinum* L. Sp. 53 (1753), not *Scirpus alpinus* Schleicher in Gaud. Fl. Helv. i. 108 (1828). *Linagrostis alpina* Scop. Fl. Carn., ed. 2, i. 48 (1772). *Eriophorum hudsonianum* Michx. Fl. i. 34 (1803). *Trichophorum alpinum* Pers. Syn. i. 70 (1805). *Scirpus Trichophorum* Asch. & Graebn. Syn. ii. ab. 2, 301 (1903).

I have recently discussed this plant at length [1] and the reasons why it should be considered a *Scirpus* rather than an *Eriophorum*. The ruling of the International Congress at Vienna requires the retention of the earliest available specific name, and since there is already a *Scirpus alpinus* of Schleicher, it is necessary to take up Michaux's name which was given to a plant clearly identical with the Linnean *Eriophorum alpinum*.

[1] Rhodora, vii. 131, 132 (1905).

Scirpus **etuberculatus** (Steud.), n. comb. *S. maritimus*, var. *cylindricus* Torr. Ann. Lyc. Nat. Hist. N. Y. iii. 325 (1836). *Rhynchospora etuberculata* Steud. Syn. Pl. Cyp. 142 (1855). *Scirpus leptolepis* Chapm. Fl. 520 (1860). *S. Canbyi* Gray in Canby, Proc. Acad. Nat. Sci. Philad. 1864, 18. *S. cylindricus* Britton, Trans. N. Y. Acad. Sci. xi. 79 (1892).

Scirpus robustus Pursh, Fl. 56 (1814) as now understood by the writer is a tall plant of the shores of the Gulf of Mexico and Florida, extending north to Cape Cod. Its green leaves are very long, equalling or overtopping the stout tall (0.7 to 1.2 m. high) culm; those of the involucre 3 or 4, the longest 2.5 to 4 dm. long: its spikelets are very rufescent, ovoid to cylindric, some sessile, others on short rays: the scales are all pubescent and strongly colored with elongate red markings and the awns many times exceed the cleft tips.

Northward and in alkaline regions of the interior *S. robustus* gives way to a variable plant with shorter paler leaves, and the scales of the spikelets from whitish-brown to castaneous scarcely if at all rufescent, the outermost scales glabrous except at tip, and the awn only twice or thrice exceeding the cleft-tip. This plant of the northern and interior portions of the continent, as stated, is very variable, but a prolonged study supplementary to a former attempt to separate the plants clearly [1] has failed to reveal any constant characters by which the plants can be separated specifically. This series of variations as understood by the writer falls into the following arrangement.

S. campestris Britton. Culms 0.3 to 1 m. high, usually exceeding the stiff pale leaves (3 to 9 mm. broad): involucral leaves 2 (or 3), the longer 1 to 2 dm. long: spikelets whitish brown, ovoid to cylindric, 1 to 2 cm. long, 6 to 10 mm. thick, 2 to 11 in a dense glomerule occasionally a few in a secondary glomerule: scales puberulent, or the outermost glabrous except at tip; the slightly curved awn twice or thrice exceeding the cleft-tip: achenes lenticular, plano-convex or obscurely trigonous.— Britton in Britton & Brown, Ill. Fl. i. 267, fig. 627 (1896); Bicknell, Torreya, i. 95 (1901). *S. robustus*, var. *campestris* Fernald, Rhodora, ii. 241 (1900).— Manitoba to Kansas, Nevada, eastern California and northern Mexico. Northward and in the mountains passing to

Var. **paludosus** (A. Nelson), n. comb. Similar but with the scales drab to castaneous. *S. paludosus* A. Nelson, Bull. Torr. Bot. Club, xxvi. 5 (1899); Bicknell, l. c. 94 (1901). *S. robustus*, var. *paludosus* Fernald, l. c. (1900). Alkaline soil, from the Gulf of St. Lawrence

[1] Rhodora, ii. 238 (1900)

to the Pacific, south to New Jersey, central New York, Kansas, Wyoming, &c.

Var. **novae-angliae** (Britton), n. comb. Usually taller (1 to 2 m. high): the involucral leaves 3 to 5, the longest 2 to 3.5 dm. long: the looser inflorescence with 3 to 9 curved rays (2 to 10 cm. long): spikelets long-cylindric, 2 to 5 cm. long.— *S. novae-angliae* Britton in Britton & Brown, Ill. Fl. iii. 509, fig. 627a (1898).— Maine to southern New York, also western New York.

Var. **Fernaldi** (Bicknell) Bartlett in herb. Spikelets short-ovoid, 1 to 2 cm. long, on mostly elongate rays.— *S. Fernaldi* Bicknell, l. c. 96 (1901).— Maine to Massachusetts.

Scirpus atrovirens as it usually passes in eastern America is a complex of three well marked species, which have been already defined, two as a species, one as a variety. A very full suite of specimens and field notes sent to the writer by Dr. J. V. Haberer has enabled him to study the plants with much satisfaction and the results of this study may be briefly summarized as follows.

S. atrovirens Muhl. Gram. 43 (1817). Rather stout, 0.8 to 1.5 m. high: leaves pale green, with scabrous margins, 7 to 15 mm. wide, at least the lower nodulose-reticulate, the ribs 0.25 to 0.3 mm. apart: some of the rays of the inflorescence elongate and definite: spikelets dull greenish-brown or rufescent, narrowly ovoid to cylindric, 3.5 to 8 (rarely 10) mm. long, in glomerules of 10 to 30: scales dark brown, orbicular-ovate, abruptly mucronate, 1.5 to 2 mm. long, one-third longer than the achene: bristles sparsely and strongly barbed, nearly straight, as long as the conspicuously pointed and obovoid-oblong trigonous achene.— Meadows and bogs, Montmorency County, Quebec to Saskatchewan, south to Georgia and Missouri. Fruiting in the North in late July and August. Local in New England and adjacent Canada.

Var. **pycnocephalus**, n. var. All the rays abbreviated; glomerules crowded in a dense irregular head.— New York, rich alluvial soil, border of Little Lake, Mohawk flats, 2 miles east of Utica, July 18, 1900 (*J. V. Haberer*, no. 1516a).

S. **pallidus** (Britton), n. comb. Similar: leaves very pale: spikelets pale brown, very numerous in irregular glomerules: scales elliptic-ovate, 2 to 3 mm. long with the conspicuous pale midribs prolonged into long setulose awns, about twice as long as the achenes.— *S. atrovirens*, var. *pallidus* Britton, Trans. N. Y. Acad. Sci. ix. 14 (1889). — Manitoba to Kansas and the Rocky Mountains.

S. georgianus Harper. Slender, 3 to 12 dm. high, bright green: leaves smooth, rarely nodulose below, numerous, crowded at base, 0.5 to 1 cm. broad, the ribs 0.15 to 0.2 mm. apart: spikelets 2 to 4 mm. long, numerous in the glomerules: the greenish-brown or rufescent

scales mucronate, 1 to 1.5 mm. long, slightly exceeding the elliptic-oblong achenes: bristles shorter than the achene, very finely setulose, or wanting.— Bull. Torr. Bot. Club, xxvii. 331, t. 22 (1900).— Quebec to Michigan, south to Georgia and Arkansas. Fruiting northward in late June and July. The common plant of New England.

SCIRPUS CYPERINUS (L.) Kunth has been discussed by me in detail[1] and a number of allied species and varieties set off from it. The true *S. cyperinus* with the spikelets all glomerulate has reddish brown involucels, scales and bristles, and occurs from New England to Virginia, Tennessee, and Arkansas, being commonest in the middle Atlantic States. The common representative of *S. cyperinus* in Newfoundland, eastern Canada and northern New England, differs so generally in the color of its involucels and bristles that it is here designated

S. CYPERINUS, var. **pelius**, n. var. Involucels dull brown or drab, with blackish bases: rays elongate the glomerules mostly distinct: bristles drab or smoke-color.— The common extreme northward, occurring generally from Newfoundland to Ontario, south to Connecticut, central New York, and Michigan. The following, from among nearly 100 sheets examined, are characteristic specimens. NEWFOUNDLAND, damp places in woods, Torbay, August 21–26, 1901 (*Howe & Lang*, no. 1438): NOVA SCOTIA, damp places, Halifax Harbor, September 2–6, 1901 (*Howe & Lang*, no. 1481): MAINE, boggy meadow, Cutler, August 29, 1902 — type (*M. L. Fernald*): NEW HAMPSHIRE, marshy places, Alstead, August 9, 1899 (*M. L. Fernald*, no. 323): VERMONT, swales near Bread Loaf Inn, Ripton, September 11, 1899 (*E. Brainerd*): RHODE ISLAND, Cumberland, September 13, 1903 (*J. M. Greenman*, no. 1803): CONNECTICUT, alluvial soil, Selden's Cove, Lyme, July 28, 1902 (*C. H. Bissell*): NEW YORK, upland marshy pasture, 3 miles south of Utica, August 8, 1900 (*J. V. Haberer*, no. 1496): ONTARIO, east of Windsor, July 30, 1901 (*J. Macoun*): MICHIGAN, swamps, Alma, August 30, 1893 (*C. A. Davis*).

RYNCHOSPERA MACROSTACHYA Torr., var. **inundata** (Oakes), n. comb. "Corymbs almost wholly terminal. Clusters loose, few flowered. This variety appears at first sight like a distinct species. Grows in deeper water than the common one, which is the cause of its different appearance. West pond, Plymouth, Mass. Mr. Tuckerman, 1839. The common form is very abundant, at the same locality." Oakes in Hovey's Mag. vii. 185 (1841).— *Ceratoschoenus macro-*

[1] Proc. Am. Acad. xxxiv. 498–501 (1899), & RHODORA, i i 15–16 (1900).

stachys Torr., *β inundatus* Oakes, l. c. *C. macrostachyus*, var. *patulus* Chapm. Fl. 529 (1860). *Rynchospora corniculata* (Lam.) Gray, var. *patula* Britton, Trans. N. Y. Acad. Sci. xi. 84 (1892). *R. macrostachya*, var. *patula* Chapm. Fl. ed. 3, 556 (1897).

This well known southern plant, reaching its northern limit at Plymouth, has a superficial resemblance to *R. corniculata*, but in its bristle characters it is identical with *R. macrostachya*, which is frequent in the Cape Cod region, and according to Oakes was abundant at the same locality as his original material of var. *inundata*. *R. corniculata* with short stout bristles is unknown, on the other hand, north of Delaware.

Scleria pauciflora Muhl., var. **kansana**, n. var. Very slender and pubescent: each group of tubercles consisting of two uniform ones and a third smaller one.— Kansas, sandy soil, Cherokee County, 1896 (*A. S. Hitchcock*, no. 864). Resembling var. *caroliniana* (Willd.) Wood, but differing in the presence of the third small tubercle at each angle of the disk, the angles of *S. pauciflora* and its var. *caroliniana* each bearing 2 distinct uniform tubercles.

Carex **hormathodes**, n. name. *C. straminea*, var. *aperta* Boott. Ill. iii. 120, t. 385 (1862). *C. straminea*, var. *tenera* Bailey, Bot. Gaz, x, 381 (1885), & Mem. Torr. Bot. Club, v. 94 (1894); not Boott, Ill. iii. 120, t. 384. *C. tenera*, Britton in Britton & Brown, Ill. Fl. i. 358, fig. 870 (1896); Fernald, Proc. Am. Acad. xxxvii. 474, figs. 31, 32 (1902); not Dewey, Am. Jour. Sci. viii. 97, (1824), & ix. t. c, fig. 9 (1825).

Carey, Boott and some other distinguished students of *Carex* contemporary with Dewey, recognized his *C. tenera* as identical with the plant we now understand as *C. straminea* Willd. (not Schkuhr). Recent authors have, however, considered it as identical with the larger primarily coastal plant with the perigynia about 10 nerved on either face,— the plant described and illustrated by Boott as *C. straminea*, var. *aperta*. The recent accession by the Gray Herbarium of the Carices of the late Chester Dewey has made it possible to gain a clearing though somewhat surprising light upon this subject. Dewey ordinarily indicated his type specimen by "(Mihi)" after the specific name and later, very shortly before his death apparently, he added to the labels the word "original" in a very dark ink. In the cover of *Carex tenera* most of the material is clearly of one species. Two of the plants are indicated by Dewey as the basis of his species. One bears the label "*C. tenera* (Mihi). Sill. Journ. Vol. viii" and the later

"original"; the other is labeled "*C. tenera* D. Saddle Mt. [Williamstown, Massachusetts], June 20" and the usual word "original" added. On other labels of similar plants sent to him by various collectors,—Sartwell, Macoun, and others — Dewey has written "yes," etc. These plants are mostly quite identical with the "original" specimens and the species is clearly the plant which was understood as *C. tenera* by Carey, Francis Boott, and others who had material from Dewey. This plant as already indicated is identified with the Willdenovian *C. straminea*.[1] Thus since the name *C. tenera* Dewey can no longer be applied to the larger plant to which it has recently been transferred, and the name *aperta* applied by Boott to the plant, as a variety of *C. straminea*, is already used in the genus, it becomes necessary to designate the species by some other name; and on account of the usually elongate moniliform inflorescence this coastal plant is here called *C. hormathodes*, of which the following varieties are noteworthy. .

C. HORMATHODES, var. **invisa** (W. Boott), n. comb. *C. straminea*, var. *invisa* W. Boott, Bot. Gaz. ix. 86 (1884). *C. tenera*, var. *invisa* Britton in Britton & Brown, Ill. Fl. i. 358 (1896).

C. HORMATHODES, var. **Richii** (Fernald), n. comb. *C. tenera*, var. *Richii* Fernald, Proc. Am. Acad. xxxvii. 475, figs. 33, 34 (1902).

CAREX RETROFLEXA, Muhl., var. **texensis** (Torrey), n. comb. *C. rosea*, γ *texensis* Torr. Ann. Lyc. N. Y. iii. 389 (1836), *nomen nudum*. *C. texensis* Bailey, Mem. Torr. Bot. Club, v. 97 (1894).

C. rosea Schkuhr and its varieties, *radiata* Dewey, and *minor* Boott, have their perigynia with minutely serrulate margins, the scales blunt, and the spikes mostly remote. *C. retroflexa* and its var. *texensis*, on the other hand, have the perigynia with smooth margins, the scales acuminate, and the spikes mostly approximate. In no character do they seem to differ except in the outline of the perigynia, those of *C. retroflexa* being broadly ovoid, of var. *texensis* lance-ovoid to lance-subulate. Though occasional transitional plants occur the two seem to be fairly marked extremes, the variety standing in the same relation to the species as *C. stellulata*, var. *angustata* Carey, *C. interior*, var. *Josselynii* Fernald, *C. granularis*, var. *Haleana* (Olney) Porter, *C. vesicaria*, var. *Raeana* (Boott) Fernald, &c. to the broad-fruited types of their respective species. The occurrence of *C. retroflexa*, var. *texensis* throughout the southern range of the species — from Kentucky

[1] See Fernald, Proc. Am. Acad. xxxvii. 450 (1902).

to Missouri and southward — suggests that it may be found also in the more northern range of the species which extends northward to Massachusetts and southern Ontario.

Carex setacea Dewey, var. **ambigua** (Barratt), n. comb. *C. vulpinoidea*, var. *ambigua* Barratt according to Boott, Ill. iii. 125, t. 406 (1862). *C. xanthocarpa* Bicknell, Bull. Torr. Bot. Club, xxiii. 22 (1896).

This plant was beautifully illustrated by Francis Boott from Connecticut specimens and there can be no question from the plate and notes of the identity of Barratt's *C. vulpinoidea*, var. *ambigua* with Mr. Bicknell's *C. xanthocarpa*. An abundant series of material in the herbarium of Chester Dewey of his own *C. setacea* and of Sartwell's *C. scabrior* shows that while the best *C. setacea* (including *scabrior*) has ordinarily dull brown or drab lanceolate or lance-ovate perigynia tapering gradually to the serrulate beak, many specimens pass very definitely either in color or in the outline of the perigynia to a commoner plant which in its best development has the broad-ovate to orbicular perigynia abruptly short-beaked and often golden-brown in color, the latter character suggesting the name *xanthocarpa*. The transitions between these two extremes are so numerous that it seems to the writer that they are best treated as phases of one plant rather than as distinct species.

(*To be continued.*)

MEETING OF THE JOSSELYN BOTANICAL SOCIETY.

Edward B. Chamberlain.

The twelfth annual meeting of the Josselyn Botanical Society of Maine, was held on July 3d to 7th inclusive at Rowe Pond Camps, some ten miles distant from Bingham, Maine. Sixteen members and friends were present at the meetings. During the day, excursions were made to the various ponds, bogs and woodlands in the vicinity, the evenings being devoted to the business meetings of the society. Upon Wednesday evening, Mr. John Murdock, Jr., addressed the society upon the subject of forestry.